BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: November 15, 2006
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Bill Hauser
Charlie Hood
Randy Talon
Craig Drouin
Jason Tremblay
Bob Landry
Kevin Nyhan
Don Lyford
Marc Laurin
Peter Salo
Jon Evans
Keith Cota
Ron Kleiner
Steve Boyington
Mike Dugas

Federal Highway Administration
Jamie Sikora

Army Corps of Engineers
Rich Roach

NH DES
Steve Couture
Gino Infascelli

NH Fish and Game
Mike Marchand
Kim Tuttle
Dan Lynch

EPA
Mark Kern

US Fish and Wildlife Service
Bill Neidermyer

NH OEP/ CLS Program
Stephen Walker

NH OEP/ NFIP
Jennifer Gilbert

DRED – NHB
Melissa Harty

McFarland-Johnson, Inc.
Gene McCarthy
Jed Merrow

Parsons Transportation Group
Tom Kendrick
Darren Blood

SEA Consultants
Thom Marshall

City of Keene
Tom Dutton

NOTES ON CONFERENCE:

Finalization of October 18, 2006 Meeting Minutes
No one in attendance provided additional changes to the meeting minutes. The October 18, 2006 minutes were finalized.

Keene, 13710
The proposed project consists of the replacement of the bridge (No. 111/116) that carries Court Street (NH Route 12A) over the Ashuelot River in Keene, New Hampshire. The existing two-lane bridge is a two-span steel stringer bridge with a concrete deck that was built in 1950. The bridge is approximately 116 feet in overall length and provides an approximate roadway width of 24 feet curb to curb. Currently posted E-2, the bridge was added to the NHDOT Municipal Red List in 2000 due to the deteriorated condition of the deck. The bridge has been labeled structurally deficient.

The concrete deck is in poor condition with heavy leaking, rust staining and efflorescence. Several areas of spalling and de-lamination were also noticed. The steel beams exhibit some rusting with some minor

section loss. The substructure is in "fair" condition. The existing steel pile supported concrete abutment caps exhibit light cracks and the backwalls are severely spalled at the utility locations. The pier has spalled areas with rebar exposed and rusted. Debris buildup is typically present at the upstream nose of the pier.

The NHDOT classifies Court Street as an Urban Minor Arterial. Traffic counts provided by the NHDOT for the year 2002 indicate 9,200 vehicles crossed the bridge each day. In the vicinity of the bridge, there are two, 10-foot ± paved travel lanes with 2-foot ± paved shoulders.

Because of the "Redlist" status and narrow width, an Alternatives Analysis Report was completed in June 2003 to investigate potential rehabilitation and replacement options. The City decided to further investigate a new single span three-lane bridge consisting of a cast-in-place reinforced concrete deck with weathering steel plate girders. A left hand turn lane onto Starling Street was constructed to help to promote uninterrupted traffic flow during peak times. A sidewalk was also added on the upstream side.

With the exception of the existing pier removal and possible temporary falsework for erecting the girders and/or temporary bridge, very little work will be required within the Ashuelot River itself. The proposed bridge and the proposed temporary bridge will span from top-of-bank to top-of-bank. There will be a relatively large temporary impact to the wetlands on the Shaw Parcel located on the northeast corner of the bridge due to the construction of the temporary bridge roadway embankments. Permanent impacts due to the proposed roadway embankments are expected on this same parcel as well as the Shaw parcel located at the southeast corner of the bridge and on the City of Keene parcel at the southwest corner. Based on a preliminary Wetland Permit Plan, the temporary wetland impact area is around 7,700 square feet and the permanent impact area is around 1,800 square feet. This results in a total wetlands impact area of approximately 9,500 square feet.

The Federal Emergency Management Agency (FEMA) Flood Insurance Study for the City of Keene, dated September 17, 1997, includes hydraulic information at the Court Street Bridge. The 500-year flood elevation (El. 481 ±) from this study (Flood Profile 03P) indicates that the 500-year flood does not reach the bottom of the existing steel beams. There is approximately four feet of freeboard for the 500-year flood. Although the proposed single span structure is deeper than the existing two-span structure, the height of the proposed hydraulic opening will not impact the 500-year flood elevation. Therefore, a hydraulic analysis was not performed. The approximate top-of-bank elevation at both river edges on the upstream side of the bridge is El. 480±. The 100 and 10-year flood elevations in the vicinity of the bridge are at El. 480.5± and El. 478.6± respectively.

The State of New Hampshire Department of Resources and Economic Development (DRED), Division of Parks and Recreation was contacted to determine if the portion of the Ashuelot River Park that surrounds the Court Street Bridge is protected under Section 6(f) of the Land and Water Conservation Fund (LWCF) Act. The research indicated that LWCF monies were not used for this area and therefore the project was not subject to further review by the NH Division of Parks and Recreation.

The two abutting parcels owned by Emily Shaw on the east approach are protected through the Land Conservation Investment Program (LCIP). With the proposed widening and temporary bridge construction, temporary easements will be required from the Shaw parcels as follows:

<u>Map 913-6-17 (NE Quadrant)</u>
Permanent Easement = 0.138 ± acres
Temporary Easement = 0.183 ± acres

Map 913-17-5 (SE Quadrant)
Temporary Easement = 0.240 ± acres

The State of New Hampshire, Department of Resources and Economic Development, Division of Forests and Lands, Natural Heritage Bureau was contacted to determine if there are any sensitive species or plant communities near the project. They reported that this project site is within the vicinity of previously documented occurrences/observations of three different sensitive species:

The River Bank Quillwort (Isoetes riparia) plant species is listed by the State of New Hampshire as "threatened" and was observed approximately ½ mile downstream from the Court Street Bridge back in 1971.

The Dwarf Wedge Mussel (Alasmidonta heterodon) is listed by the federal government and the State of New Hampshire as an "Endangered Invertebrate Species". The site is within an area flagged for possible impacts to the mussel. The nearest documented population is approximately 2.9 miles downstream.

The Wood Turtle (Glyptemys insculpta), which is rare enough in the state to be tracked by NH Heritage was last observed approximately ½ mile downstream from the Court Street Bridge in 2001.

A field survey was performed by Oak Hill Environmental Services to determine the presence of the Dwarf Wedge Mussel, Wood Turtle and Riverbank Quilwort. A written report summarizing the findings was recently submitted to US Fish and Wildlife officials for review. The report indicated that no specimens were discovered in or around the project site for any of the three species.

The NH Division of Historical Resources (NHDHR) was contacted to identify historical and archeological characteristics of the bridge and project site. NHDHR did not consider the bridge to be historically significant but indicated that the areas disturbed by the construction of a temporary bridge would necessitate archeological research. A Phase 1A archeological assessment was completed and it was determined that "no known historic resources" were present.

Jamie Sikora, FHWA, asked if the project uses Federal Money, and it does not.

Jennifer Gilbert, NHBEM stated that the FEMA study for Cheshire County was updated on 5/23/06.

Rich Roach asked if the temporary bridge was located upstream or downstream. T. Marshall responded that it is located upstream. R. Roach asked if there were any concerns over proposed design on LCIP parcels. Steve Walker, LCIP, expressed that S E A tried to minimize impacts and that there was no other reasonable alternative given the volumes of traffic and proximity of the hospital. S. Walker asked what is proposed for drainage and how it would affect the LCIP properties. T. Marshall responded that there are currently two catch basins proposed just before the bridge on the approach that abuts the LCIP properties. One basin drains into the other and then outlets through the proposed slope onto stone fill on the upstream parcel. The headwall of the outlet pipe is within the City's right-of-way.

Mike Marchand, NHF&G asked if all impacts would be temporary. T. Marshall responded that the proposed slopes are a permanent change. M. Marchand expressed concern over introducing invasive plant species, especially with fill material brought in for temporary bridge approach embankments. Steve Couture, DES Rivers Program, asked if the slopes could be vegetated rather than using stone fill. T. Marshall responded that using vegetated slopes was considered but he felt that stone slopes were the best

solution from an engineering standpoint. The consultant could further investigate alternative technologies and solutions using vegetated slopes if that was desired. S. Walker added that there is a scenic component to the easement. He questioned the need to landscape in a floodplain or let the area revegetate naturally. T. Marshall will further evaluate vegetated slope options.

Gino Infascelli, DES Wetlands Bureau, asked what types of wetlands are present at the site. He asked if temporary impacts would be minimized by cutting vegetation and using matting and/or sod. T. Marshall responded that he did not know the classifications off hand but they have been classified and this info will be included as part of the wetlands permit application. The intent with the temporary approach work would be to cut and remove trees within the impact area and leave the native soil and use some type of matting or filter fabric to keep it separated from the fill material which will also make removal easier. Stumps could be left in place if desired.

Charlie Hood, NHDOT, asked when SEA would be filing the wetlands application. T. Marshall responded that DOT funds are available in July 2007 so they would like to file for a permit as soon as it is practical. They were trying to get a feel for the environmental and right-of-way impact issues before pushing ahead with the wetlands permit. They are probably looking at submitting the permit early next year.

No one opposed the project as presented and R. Roach indicated that the project would qualify under the State Programmatic General Permit.

Bow-Concord, T-A000(018), 13742

Gene McCarthy, McFarland-Johnson, began the presentation by providing an overview of the study area, which begins at the I-89/I-93 interchange in Bow and continues through Exit 15 in Concord. The approach to planning and design is in step with the tenets of Context Sensitive Solutions (CSS). The current phase of the project is the determination of the reasonable range of alternatives, which is expected to be completed early next year, with NEPA completion in mid-2007. A planning group was established to determine these alternatives and to date there have been 8 meetings.

The primary reason for the discussion was Option 4, particularly the so-called Route 106 Connector that would connect I-89/I-93 with NH Route 106 near its junction with US Route 3, through the Garvin's Falls area and across the Merrimack River. Jed Merrow, McFarland-Johnson, discussed the environmental resources in the area. The 1,500 acres that make up the Garvin's Falls area is largely untouched, with 450 contiguous undeveloped acres. Resources include the Soucook and Merrimack Rivers, wetlands, recreational trails, wildlife habitat, endangered species habitat and areas sensitive for archaeological resources. The USF&WS has expressed a concern for any development along this area. Much of the Garvin's Falls area is owned by Public Service of New Hampshire (PSNH). PSNH is undergoing permitting by the Federal Energy Regulatory Commission (FERC) and part of the mitigation is likely to include the preservation of either a buffer of land abutting the Merrimack River, or much of the acreage of its holdings in the Garvin's Falls area. At this time which option will be selected is unknown.

After evaluation of the traffic implications of the Route 106 Connector as a stand alone alternative, it was determined that under current development projections, it would not meet the projection goal of reducing traffic along I-93 within the study area. As such, it was deemed not to be a "reasonable alternative," that meets the purpose and need of the project. The City of Concord has completed a study of development potential/opportunities within the Garvin's Falls area that, if implemented, would generate additional traffic in the area, requiring a direct connection to I-93, such as the Route 106 Connector. In turn, this would necessitate 8 lanes on I-93. The problem and goal statements were discussed and whether or not

they include promoting this future development potential at Garvin's Falls. The City of Concord feels they do and the Town of Pembroke feels they do not. After this presentation, the floor was opened to questions and comments.

Steve Couture, NHDES River Coordinator, requested that the Upper Merrimack River Local Advisory Committee (UMRLAC) be included in the planning group. The Comprehensive Shoreland Protection Act (CSPA) provides a ¼-mile protection buffer around a designated waterbody. The UMRLAC developed a management plan and provides advisory oversight to the designated portions.

Gino Infascelli, NHDES Wetlands Bureau, in response to the question of considering the future development potential at Garvin's Falls, responded that the planning group needs to keep in mind the purpose and need of the project, which is a sufficient transportation corridor. Dan Lynch agreed that Concord believes the project should meet future economic initiatives and Pembroke does not. Rich Roach stated that the Section 404B(1) guidelines stipulate a basic purpose and need, which should be a transportation solution to the traffic problem. He added the Army Corps of Engineers (ACOE) cannot issue a permit for greater impacts of an alternative that is functionally inferior, especially if the Route 106 Connector is not merited by the traffic analysis. D. Lynch added that planning group attendees have compared the Garvin's Falls issue to the Airport Access Road. Bill Neidermyer responded that this area is vastly different, with many more resources and undeveloped lands.

G. McCarthy stated that he would like a clear understanding of where the resource agencies stand on this issue. It would be cost effective and appropriate to eliminate this Route 106 Connector from the reasonable range of alternatives prior to continuing the NEPA process, if it is not permittable, and/or there are strong objections to its inclusion. B. Neidermyer stated that the FERC permitting of PSNH would be resolved within approximately 5 years and he believes FERC wants all the lands in Garvin's Falls protected. He added that he is further opposed to any alternative, wherever it connects to I93/I-89, if it impacts the un-developed land in the Garvin's Falls area. Mike Marchand stated that Bald Eagles use this area for winter use and it is good habitat for Hognose Snake and has Pine Barrens. S. Couture made the point that the FERC permit, regardless of whether it protects just the buffer around the Merrimack, may stipulate no new crossings of the Merrimack River, eliminating a connector. Mark Kern agreed with the others that he cannot support a Route 106 Connector. He added that the City could seek its own permit and approvals for the Garvin's Falls development irrespective of this project. Bill Hauser asked planning group members to bring their concerns, expressed at this meeting, back to the full planning group.

More information on the Bow-Concord project can be found at: www.i93bowconcord.com.

This project was previously reviewed on the following dates: 7/17/2002, 8/21/2002 & 12/14/2005

Conway, HDPPE-9117(1), 11339A

Peter Salo, NHDOT, presented this project, which involves the construction of a 12-mile bypass around NH Routes 16 & 302 in Conway. Upgrades of the existing transportation facility in Conway will be complete in the spring of 2007, with the southern and northern bypass contracts completed in 2015 and completion of interim projects in 2013. He then described some of the environmental considerations with the project:

- Standard BMPs will be used during construction, including detention ponds, swales and infiltration swales by the railroad.

- At approximately 9 locations, culverts 36" diameter and greater will be sunk to accommodate fish passage.
- An approximate 400' stretch of Kearsarge Brook will be relocated to accommodate the bypass and a new intersection. Steve Couture requested that Parsons Transportation Group (PTG) use the principles in the Natural Stream Channel Design Guidelines Document currently being produced by DES to design the relocated portion of Kearsarge Brook. Kevin Nyhan will provide PTG with a copy of this DRAFT document.
- Storm drainage near Pudding Pond will be collected/contained and will outlet approximately 1-mile south of the pond.
- Some bridges have been designed to provide a dry area for terrestrial critters to pass under the roadway.
- There will be approximately 42.7 acres of wetlands impacted by this project. The Department is currently printing plans for a new wetlands application as the Departments current DES permit expires in December. The ACOE issued the Department a new permit earlier this year based on the current design and mitigation package.
- The wetland mitigation package includes preservation sites and the Pequawket Pond creation site, which was just completed. This site is approximately 13 acres in size. The complete package contains approximately 550 acres of preservation.

One issue the Department has is whether to construct the creation site at West Side Road as was discussed in the FEIS, or preserve that site and use those funds to do another project. Don Lyford, NHDOT, responded to Rich Roach, ACOE, that the West Side Road mitigation site would have cost approximately $2.5 million to build. R. Roach thought that there might be a project in the Swift River watershed that could use funding. In response, Steve Couture, DES Rivers Program, offered a project along the Conway Scenic Railroad at a crossing of the Swift River. The 2004 estimate for construction was $800,000. The project is supported by NHF&G, Swift River Local Advisory Committee and NHDES. Don Lyford responded that the Department would like to first secure the permit and then amend the mitigation package. Gino Infascelli, DES Wetlands Bureau, stated that this could be acceptable. R. Roach suggested that it would be appropriate for an entity other than NHDOT or ACOE to request a change in the mitigation package as permitted by the ACOE.

Mark Kern, EPA, asked if the Department could make the proposed roadway more permeable to animals. Kim Tuttle, NHF&G, added that she feared the roadway would be detrimental to the bobcat population in the area. Dan Lynch, NHF&G, asked if NHDES would issue the permit based on the NH Stream Crossing Standards currently being developed by NHF&G. G. Infascelli responded that the permit would be issued based on current rules. Following a brief discussion on alternative mitigation, it was agreed that interested agencies would provide NHDOT with alternative mitigation projects. R. Roach stated that the mitigation package should be geared toward aquatic restoration but it would be good to address wildlife issues too. In addition, a revised mitigation package should not add financial burden to the Department as an incentive to amending it. The mitigation, as currently proposed, has already been permitted by ACOE. *Subsequent to this meeting K. Nyhan set up an inter-agency meeting to discuss alternatives.*

This project was previously reviewed on the following dates: /23/1995, 1/17/2001, 9/19/2001, 5/15/2002 & 3/18/2004

Acworth, 14540T
Ron Kleiner, NHDOT, presented this project, which involves the replacement or rehabilitation of the 13' span, Jack Arch bridge that carries NH Route 123A over Bowers Brook in Acworth. The existing

structure is not adequately sized to pass the 50-year flood and during the flooding of October 2005 was damaged. Whether it is replaced or repaired will depend upon whether the Town of Acworth will allow a temporary closure of this part of the roadway. A replacement will require a closure of approximately 4-6 weeks. A replacement structure would be a voided slab bridge with a 25' span and a 20' opening. FEMA is providing the Department with $22,000 to repair guardrail and a retaining wall, but will not participate in the repair/replacement. This will require the balance of the funding to be entirely State Highway Funds. Steve Couture, DES Rivers Program, asked if the structure could be widened and Bob Landry, NHDOT, responded that the Department could look at a longer span.

S. Couture offered that restoration funds could be used to assist in the replacement as the provisional NH regression curves show a bankfull width of 25' at this section of Bowers Brook. The Cold River/ Warren Brook/ Bowers Brook Restoration Plan indicates that a bridge with a wider opening and floodplain culverts would be appropriate at this location. Kevin Nyhan, NHDOT, indicated that the bridge is located within a potentially National Register-eligible District and the Department would need to take that into consideration with whatever design is considered. S. Couture asked about the cost of the project. R. Kleiner responded that the proposed 20' opening would cost approximately $400,000 and a 25' opening (bankfull span) would cost $425,000. *The Department will further evaluate the alternatives and provide feedback to interested parties at a later date.*

Alstead, X-A000(479), 14541K

Kevin Nyhan, NHDOT, introduced this project, which involves the replacement or rehabilitation of the 1957 rigid frame bridge that carries NH Routes 123 & 12A over the Cold River in Alstead. The bridge experienced severe scour during the flooding of October 2005. Steve Boyington, NHDOT, stated that the flood waters overtopped the roadway washing away materials from the abutments and under the footings causing the south abutment to sink approximately 1'. In addition, the wings were designed to avoid impacts to two adjacent structures, one extant, one gone and are now insufficient for the proposed action. K. Nyhan briefly discussed the Cold River/ Warren Brook/ Bowers Brook Restoration Plan and how it affects this project. Essentially, the study indicated that given the relatively straight alignment of the River at the bridge, it did not act as a substantial restriction, even given that it is two-thirds (2/3) of the bankfull width of the river. If replaced, the study recommends a wider structure, however given the proximity of infrastructure, it did not indicate an immediate concern.

The rehabilitation will grout the glacial till material under the south abutment, solidifying it and making it stable, place up to 1' of additional concrete on the deck of the bridge, pave the bridge, replace the deficient bridge rail and approach guardrail, and construct extended wings.

There will be work outside the right-of-way on an historic parcel and potentially on a park parcel. The Department will coordinate with the appropriate entities for those impacts.

Wetland impacts total approximately 2,000 sf of permanent bank impacts, 2,300 sf of permanent channel impacts and 14,000 sf of temporary impacts. Gino Infascelli, NHDES Wetlands Bureau, asked if riprap would be used to stabilize the banks and how it would remain on the exposed ledge. Bob Landry, NHDOT, responded that it would not be used on the exposed ledge. Rich Roach, ACOE, indicated that the project would qualify under the State Programmatic General Permit and no one objected to the project.

Alstead, X-A000(425), 14540M,

Jon Evans and Bob Landry, NHDOT, presented this project, which involves the reconstruction of NH Route 123 beginning at its junction with Pine Cliff Road and proceeds west approximately 2.7 miles to a point roughly 1,900 feet east of the NH Route 12A/Griffin Hill Road intersection.

Included in this project is the reconstruction of the roadway through the Mill Hollow Historic District. One of the commitments made to the abutting property owners and NHDHR was the installation of an overflow structure to bypass the undersized Mill Hollow dam and upstream box culvert. The installation of this structure would allow increased capacity during large storm events and prevent water from overtopping the roadway and then traveling downhill, threatening both property and infrastructure. Installation of the overflow structure provides additional protection for the historic Hancock property (parcel 6), during future flood events. The overflow structure will be constructed downhill from the Dam and will outlet near the bottom of the slope as to dissipate the waters energy prior to re-entering Warren Brook. Both Gino Infascelli and Rich Roach felt this approach was appropriate.

This project will also include replacing the 6' culvert located downhill from Mill Hollow. Given the steep pitch and perched outlet of this pipe it is unlikely that it adequately passes fish and therefore NHDOT is investigating possible solutions prior to further review with the resource agencies. This project will also include widening of the road to accommodate for an 11-4 typical and therefore impacts to wetland roadside ditches and cross culverts would likely be necessary.

J. Evans passed out a summary of the preliminary permanent impacts for the six Alstead projects. These impacts included 10,865 sf of impacts within the 14540M project, 33,178 sf within 14541J, 2,612 sf within 14540W and 3,494 sf within the 14541K project. The total corridor wide projections (including all previously reviewed projects) are approximately 104,379 sf (2.4 ac) of permanent impacts. Rich Roach, ACOE, indicated that these projects were essentially putting back what previously existed with some minor upgrades and therefore all of the projects within Alstead would qualify under the NH SPGP.

This project was previously reviewed on the following dates: 3/15/2006